



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

into the past, do we find reason for believing the straits were then as narrow as now? May not an ocean have rolled between, or ice blocked up every portion of the way? In the second part, the researches of Max Müller, Tylor and others as to myths and worship in its various forms, are very clearly outlined, and, we doubt not, will be read with pleasure by all who purchase this little volume. We hope, with the author, that the subjects treated of may rouse a curiosity which will lead to the careful study of the works of Tylor, Lubbock, Nilsson, Waitz and other ethnologists, from which Mr. Clodd has so largely drawn in his brief account of Man in Early Times.—C. C. A.

CATALOGUE OF THE PHÆNOGAMOUS AND VASCULAR CRYPTOGAMOUS PLANTS OF CANADA AND THE NORTHEASTERN PORTION OF THE UNITED STATES.*—This is somewhat on the plan of the British exchange Catalogue which was in use twenty years ago. It is printed in eight pages of large quarto size, each of six columns. The portion of the United States included is co-extensive with that of "Gray's Manual" with the addition of a range of states on the western side of the Mississippi; namely, Missouri, Iowa and Minnesota.

An ingenious arrangement indicates the geographical range of each species, *i. e.*, its occurrence in either or all of three districts, *viz.*: 1, Canada; 2, Virginia; 3, Illinois; respectively representing the northern, the southern and the western distribution. The Catalogue extends to varieties, is very carefully prepared, evidently with much pains, and is admirably adapted for its purpose; that of facilitating exchanges among botanists. Mr. Curtiss, as one of our most active botanists, has doubtless felt the need of what he has now supplied.

BULLETIN OF THE BUFFALO SOCIETY OF NATURAL SCIENCES.†—A new life is pervading this society, perhaps due to the removal of Mr. Grote, the well known lepidopterist, from the south to Buffalo. The first number of its Bulletin contains the four following valuable papers on moths by Mr. Grote, which will greatly interest lepidopterists. "Description of New North American

* Catalogue of the Phænogamous and Vascular Cryptogamous Plants of Canada and the Northeastern Portion of the United States. By A. H. Curtiss, Liberty, Bedford Co., Virginia.

† Bulletin of the Buffalo Society of Natural Sciences, Vol. i, Nos. 1 and 2, Buffalo, N. Y., 1873. With 3 lithographic plates. 8vo. pp. 128, \$2.50 a vol.

Moths," "Catalogue of the Sphingidæ of North America," "Catalogue of the Zygaenidæ of North America," "Conclusions drawn from a study of the Genera *Hypena* and *Herminia*." The second number, which was received by us on Aug. 2d, contains two more plates of moths illustrating two papers by Mr. Grote entitled "Contributions to a Knowledge of North American Moths" and "A Study of North American Noctuidæ." It also contains a paper of thirty-two pages of "Descriptions of New Species of Fungi," by Chas. H. Peck. ^s

We congratulate the society on the very creditable appearance of these two parts of its first volume, and think that it will find this prompt publication of papers read before its meetings of far more value to the authors in the matter of priority than the documents it has sent out regarding them.

BOTANY.

THE FERTILIZATION OF GRASSES.—Prof. Hildebrand, a German botanist who has paid great attention to the subject of the fertilization of flowering plants, has recently made an important series of observations on the fertilization of grasses, and especially of cereals. The agent of fertilization in all grasses, except those few in which the flowers never open, is the wind, insects apparently playing no part in it. With this object the pollen grains are very fine and smooth, so that they are at once dispersed by a breath of air; the filaments are usually not stiff, but versatile, and the stigma is either feathery, or presents a large surface with numerous indentations in which the pollen is easily lodged. These contrivances render cross-fertilization inevitable; and, while self-fertilization is in most cases not absolutely prevented, it is generally rendered very difficult. Many species, however, which are ordinarily cross-fertilized never open their flowers when the weather is cold and rainy, and are, in such circumstances, necessarily self-fertilized. In grasses with unisexual flowers, cross-fertilization must take place as a matter of course. In those with hermaphrodite flowers a few are protogynous, and hence also necessarily cross-fertilized. In the larger number of grasses, however, the male and female organs are developed at the same time, and special contrivances occur for ensuring cross-fertilization. In the rye the position of the organs is such that a part of the